

A NEW SPECIES OF THE GENUS *EUDMETA* WIEDEMANN (DIPTERA, STRATIOMYIDAE) FROM CHINA

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Abstract A new species of *Eudmeta* (Diptera: Stratiomyidae), *E. coerulea culata* sp. nov. is described from Hainan Province in China. A key to species of *Eudmeta* is provided.

Key words Diptera, Stratiomyidae, *Eudmeta*, new species, China

Introduction

The genus *Eudmeta* Wiedemann, 1830 belongs to the subfamily Clitellariinae (Diptera: Stratiomyidae). Three species have been reported mainly from the Oriental and Australian Regions (Brunetti 1920, 1923; Kertész 1909; de Meijere 1904; Woodley, 2001), only one species *E. diadematipennis* is been known in China (Yang *et al.*, 2008). In this paper, one new species is described.

Materials and Methods

Morphological terminology follows Merz & Haenni (2000). The specimens examined in this study were deposited in the Insect Collection at the Institute of Entomology, Guizhou University, Guiyang, Guizhou Province, China (GUGC).

Eudmeta Wiedemann, 1830

Eudmeta Wiedemann, 1830: 43. Type species: *Hemelia marginata* Fabricius, 1805.

Diagnosis Head about as broad as thorax. Eyes bare, contiguous for a considerable distance in ♂, and widely separated in ♀; eyes of male with larger upper facets, female with distinct postocular rim. Antenna inserted below middle line of head, antenna longer than width of head obviously; scape and pedicel subequal; flagellum longer than head, cylindrical with 8 flagellomeres. Thorax elongate, oval; scutellum without spines. Wing with R_4 present; CuA_1 veins raised from discal cell. Abdomen long elliptical, as long as or slightly longer than thorax, flattened, depressed towards tip.

Key to species of *Eudmeta*.

1. Body mainly black 2
- Body mainly yellowish brown 3
2. Thorax with orange or yellow spots (possibly green in life),

- abdominal side-margins yellow *E. marginata* (Fabricius)
- Thorax with blue spots, proepimeron blue, abdominal side-margins pale blue *E. coerulea culata* sp. nov.
3. Abdominal tergites 1-3 brownish yellow, but tergite 3 with a transverse black strip, tergites 4-5 black, but side-margin brownish yellow *E. diadematipennis* Brunetti
 - Abdomen yellowish brown, tergite 2 in middle with two blackish brown longitudinal strips near side margin, tergites 4-5 wholly blackish brown *E. brunnea* de Meijere

Eudmeta coerulea culata sp. nov. (Figs 1-13)

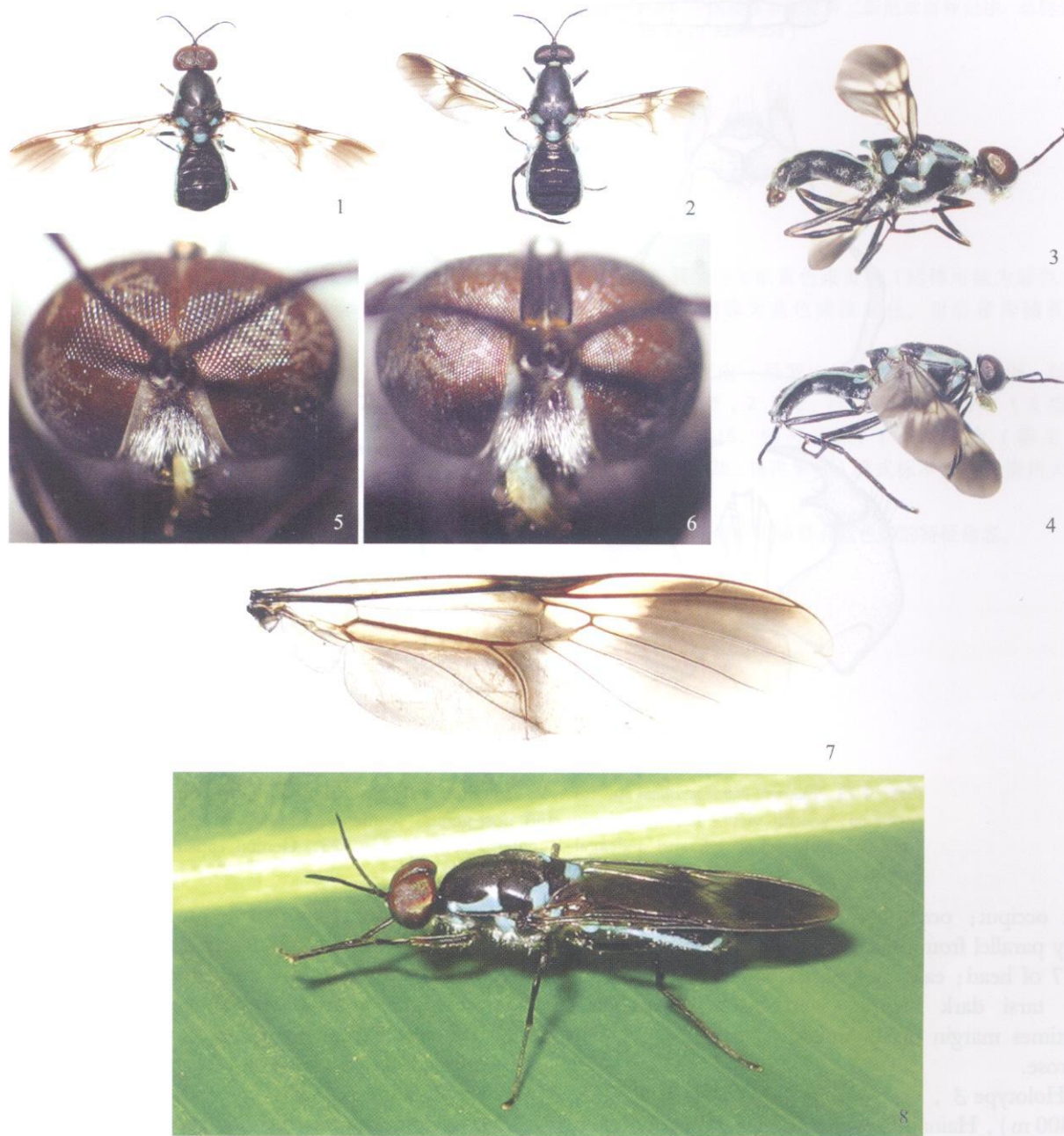
Description Male (Figs 1, 3, 5, 13). Body length 11.0-15.5 mm, wing length 10.2-11.8 mm.

Head elliptical in frontal view, 1.3 times broader than high in front and 1.5 times longer than high in profile. Eyes bare, reddish-brown, contiguous for long distance, upper facets much larger than the lower. Vertex black, with black hairs, nearly occupied by raised obviously ocellar tubercle and brownish ocelli. Frons pale blue, bare. Circumference of antennal socket black, raised obviously. Antenna (Fig. 8) dark brown to black, obviously longer than width of head; scape and pedicel black, with black marginal hairs; pedicel 1.2 times long than scape; flagellum formed with 8 flagellomeres, basal 4 flagellomeres bare, brown in inside, black in outside; apical 4 flagellomeres with thick black short hairs; antennal ratio 1.0: 1.2: 1.0: 1.0: 1.0: 0.5: 0.5: 1.2: 1.6: 6.5. Face black, each side with a blue stripe along margin of eyes, and with thick white long hairs on centre of face. Proboscis mostly pale blue with whitish yellow hairs, but its base black. Occiput black, the lower part with white long hairs.

Thorax mostly shining black, but with following blue parts: postpronotal lobe, postalar calli, a broad stripe from postpronotal lobe to transverse suture on side of scutum, a spot on tip of scutellum, a broad nearly triangular spot just in front of wing-base on

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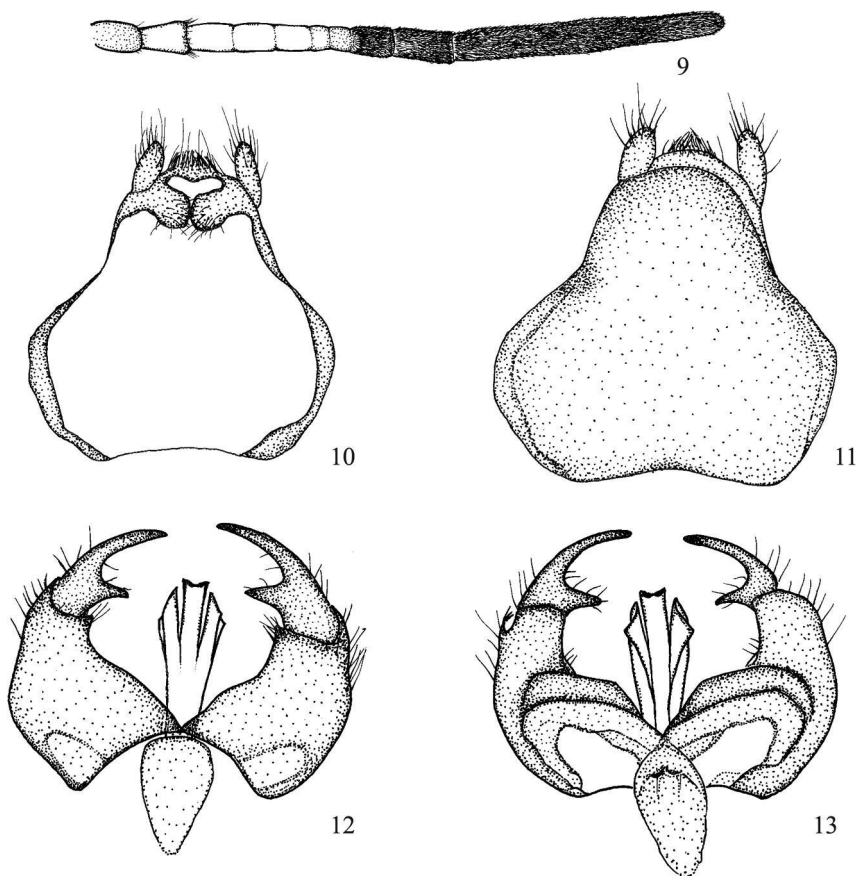


Figs 1-8 Adults of *Eudmeta coerulea lata* sp. nov., morphological features 1, 3, 5, 8 ♂. 2, 4, 6 ♀. 7 Wing

anepisternum, upmargin of kataposternum, proepimeron and anepimeron, whole dorsum with vertical black long hairs and decumbent whitish yellow hairs, side of thorax with vertical white long hairs. Wing (Fig. 7) pale yellowish brown, with pale grey hind margin, nearly hyaline, but with a dark brown streak across middle from stigma to anal cell and a dark brown large spot nearly occupying whole apex. Leg black, all tarsi and hind tibiae with dark to black short hairs, remain of legs bare or only with sparsely pale hairs. Haltere stem brown, knob blue.

Abdominal tergites mostly black, shining bluish purple, with decumbent black short hairs, but circumference of abdomen with narrow blue margin and white long hairs on it, ventral color same to dorsum, but the blue margin is narrower and with pale yellow short hairs. Male genitalia (Figs 9-12) large, nearly spherical, aedeagal complex with three lobes (Figs 11, 12), two lateral lobes roll-to-roll.

Female (Figs 2, 4, 6). Body length 10.5-13.0 mm, wings length 11.0-12.5 mm. Similar to male except as follows: eyes widely separated, with broader



Figs 9-13. *Eudmeta coerulea maculata* sp. nov. 9 Antenna 10 Epandrium and post-genital segments ventral view. 11. Epandrium and post-genital segments dorsal view. 12 Genital capsule, gonostyli and aedeagal complex ventral view. 13 Genital capsule, gonostyli and aedeagal complex dorsal view.

black occiput, ocelli blue, frons black, bare, side nearly parallel from ocellar tubercle to antenna, as 1/8 to 1/7 of head; each side of occiput with a blue long spot; tarsi dark brown, with black short hairs, sometimes margin of abdominal dorsum pale blue or primrose.

Holotype ♂, Diaohoshan (18°43'N, 109°52'E; alt 400 m), Hainan Province, China, 10 Apr 2009, YANG Zaihua leg. Paratypes, Hainan Province, China, 2 ♂♂, 2 ♀♀, same as holotype; 1 ♂ Wuzhishan (18°54'N, 109°40'E; alt 600 m), 16 Apr 2009, 1 ♀, Bawangling (19°05'N, 109°07'E; alt 860 m), 28 Apr 2009, all by YANG Zaihua leg.

Eymology. The specific name is derived from the Latin words “*coerule*” plus “*maculata*” (= blue stripe), referring to the blue spots on the thorax of the adult.

Remarks. This species is very similar to *E. marginata* Fabricius (redescribed in Brunetti 1920), but is easily separated from the latter in having black thorax but postpronotal lobe, postalar calli, a broad stripe from postpronotal lobe to transverse suture on side of scutum, a spot on tip of scutellum, proepimeron, a broad nearly triangular spot just in front of wing-base on

anepisternum, katapisternum and anepimeron are blue, face without pale spots. But *E. marginata* except proepimeron didn't described, all mentioned above are orange or yellow (possibly green in life), and face with two small contiguous spots. The new species has the side-margin of abdomen pale or blue, but the latter yellow.

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中国优多水虻属一新种记述（双翅目，水虻科）

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摘 要 记述了采自中国海南的优多水虻属（双翅目，水虻科）1新种：蓝斑优多水虻 *Eudmeta coerulea* sp. nov., 编制了该属分种检索表。

蓝斑优多水虻，新种 *Eudmeta coerulea* sp. nov. (图 1~ 13)

新种特征上似 *E. marginata*, 但从其体色差异就很容易将其区别开来，新种主要黑色，其胸部：肩角、前胸下侧板、胸背板侧缘从肩角到中缝的宽条斑、翅后胛及相连的背板后侧角、小盾片端部的斑、上前侧板在接近翅基的斑、下前侧板上缘、前侧板蓝色；而后者体上的斑，除了前胸下侧板没

有描述外，其余均为橘黄色或黄色（活体可能为绿色）。此外，新种腹部侧缘为蓝色或淡蓝色，而后者为橘黄色或黄色。

正模 ♂，海南（吊罗山），400 m, 2009-04-08 杨再华采。副模：2 ♂♂, 2 ♀♀, 同正模；1 ♂海南（五指山），600 m, 2009-04-16 杨再华采；1 ♀, 海南（霸王岭），860 m, 2009-04-28 杨再华采。模式标本保存于贵州大学昆虫研究所标本馆。

词源：新种以成虫体具有蓝色斑的特征命名。

关键词 双翅目，水虻科，优多水虻属，新种，中国。
中图分类号 Q 969. 447. 5

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